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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,490	10/20/2003	David E. Fly	FLYPIN	7917

7590

05/04/2005

ROBERT J. HARTER
4233 CLIFFSIDE DRIVE
LA CROSSE, WI 54601

EXAMINER

MITCHELL, KATHERINE W

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/689,490

Applicant(s)

FLY, DAVID E.

Examiner

Katherine W. Mitchell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 11-14, 23 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 15-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/20/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/20/03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election of claims 1-6, 8-10, and 15-22 in the reply filed on 2/1/2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Upon beginning examination, examiner has determined that claim 7 can be included in the elected claims and thus it is being examined..

Claims 11-14 and 23-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species and groups, there being no allowable generic or linking claim. Election is treated as though it was made **without** traverse in the reply filed on 2/1/2005.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 claims an infinite plurality of parallel lines, at least some of which define a plurality of line segments that terminate at the axial surface and the cam surface. Applicant then claims the plurality of line segments includes a shortest line segment. This shortest segment is then claimed as having a varying length. Shortest is absolute.

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Since an plurality of line segments, defined by an infinite plurality of parallel lines, terminating at the axial and cam surfaces are claimed, the shortest line cannot change in length, as it would not be the shortest line. The sleeve is a physical object of fixed length, and thus a line on its surface terminating at the axial surface and cam surface cannot change length. Examiner has reviewed Figs 9 and 10 and page 7, 2nd full paragraph carefully, and cannot understand what is being claimed:

To express this axial clamping feature geometrically, the unstressed outer diameter of sleeve 16 defines or lies along an imaginary cylinder 66, as shown in FIGS. 9 and 10. Cylinder 66 comprises an infinite number of parallel lines 68 of which at least some define a plurality of line segments 70 that terminate at axial clamping surface 64 and cam surface 62. The plurality of line segments 70 include a shortest line segment 72 having a length 74 that varies upon rotating sleeve 16 or cylinder 66 relative to cam head 20 and clamp head 22. The shortening of length 74 is what creates the axial clamping aspect of fastener 10.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-10, 15-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Le USP 4789287 in view of Dickerson et al USP 4232880.

Re claims 1, 10, and 16 and 22: Le teaches a fastener comprising:

- a shaft longitudinal centerline (col 3 lines 15-23, Figs 1-4)

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- a cam head 7 at one shaft end with an offset centerline with respect to (wrt) the fastener (offset by distance "e" in Figs 1 and 3)
- a clamp head at opposite shaft end (18, note col 2 lines 30-34 also)
- a radially expandable sleeve, 4 (Figs 2,4,6,8, col 3 lines 23-64) defines an opening through which the shaft extends, wherein the shaft is radially movable within the opening between a release and clamp position, and wherein the outer diameter of the sleeve increases in response to the shaft moving radially from release to clamp positions (col 3 lines 41-col 4 line 7, esp. col 3 lines 65-68)

However, Le does not teach an oblong opening in the sleeve wherein the sleeve's longitudinal centerline is radially offset wrt the shaft's longitudinal centerline. Dickerson teaches a sleeve 44 with an oblong hole (Figs 2, 3, col 4 lines 15-38). Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Le and Dickerson before him at the time the invention was made, to modify Le as taught by Dickerson to include an oblong opening in the sleeve wherein the sleeve's longitudinal centerline is radially offset wrt the shaft's longitudinal centerline of Dickerson, in order to obtain maximum radial sleeve expansion for rotational shaft movement, thus enhancing the grip of the fastener on the panel apertures. One would have been motivated to make such a combination because rigid securement would have been obtained, as taught/suggested by Dickerson in col 3 lines 4-9 and 26-36.

Further Re claims 10 and 22: the oblong opening of Dickerson has a shape that lies along a plane perpendicular to the sleeve's longitudinal centerline. An eccentric

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shape would have at least one end narrower than some other end, as ends have not been defined.

Further Re claim 16: As best understood by examiner, the sleeve of Le would also comprise an outer diameter defining an infinite plurality of parallel lines, including a plurality of lines segments between the clamping and camming surfaces, including a shortest line segment that would have a length that changes when rotating the sleeve wrt the cam head and clamp head, and the fastener is inevitably capable of clamping in the axial direction upon rotating the cam and clamp heads wrt to sleeve, per Le col 5 line 20 – col 6 line 4.

Re claims 2 and 17: The sleeve of Le in view of Dickerson is rotatable to vary the radial offset between the sleeve's longitudinal centerline wrt the cam's longitudinal centerline, as Dickerson col 3 lines 26-36.

Re claims 3 and 9 and 21: Le teaches that the cam head and clamp head can be spaced apart at a fixed distance in col 2 lines 30-34.

Re claims 4 and 18: full length slit shown in Le Fig 2 and 8, and col 3 lines 37-40.

Re claim 5 and 19: slit is at narrowest side of sleeve, thus the slit side is the clamp position, per Le col 3 lines 37-40 and col 3 lines 65- col 4 line 7.

Re claims 6 and 7: Examiner takes Official Notice that handles are well known in the art as useful in transmitting rotational movement to shafts, and could be attached at either end, depending on use and clearances.

Re claims 8 and 20: Le teaches a cam with an inclined surface at an angle to the cam's longitudinal centerline, as examiner notes that 90 degrees is an incline and an angle. Dickerson also shows an incline other than 90 degrees in the tapered shaft shown in Figs 4 and 5.

Re claim 15: Examiner takes Official Notice that alignment marks to indicate that two parts are aligned is well known in the art, as evidenced by Duran USP 5073075, col 4 lines 16-20 and Fig 11.

Claim Objections

5. Claim 5 is objected to because of the following informalities: Applicant is claiming an apparatus, but has a method of use step "moves toward" in claim 5. A more correct wording is the wording of claim 19, "is movable toward". Appropriate correction is required.

Double Patenting

6. Claim 9 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 3. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). The independent claim requires the cam and head to be spaced apart, and otherwise the claims are the same.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

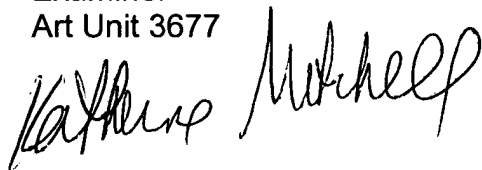
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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W. Mitchell whose telephone number is 571-272-7069. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Katherine W Mitchell
Examiner
Art Unit 3677



Kwm
4/27/2005